



**City of Santa Clara
Building Inspection Division**

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**FURNACES AND AIR CONDITIONER
REQUIREMENTS**

October 28, 2005

City of Santa Clara

Building Inspection Division

Furnaces and Air Conditioner Requirements

This packet explains residential attic furnace and air conditioning systems installation requirements.



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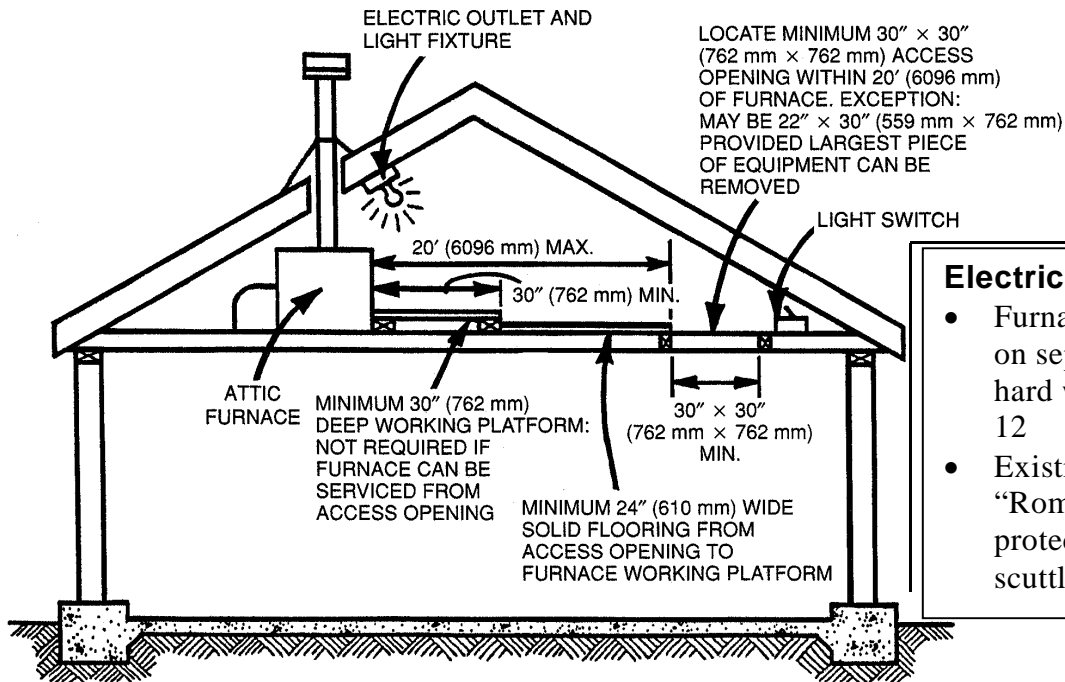
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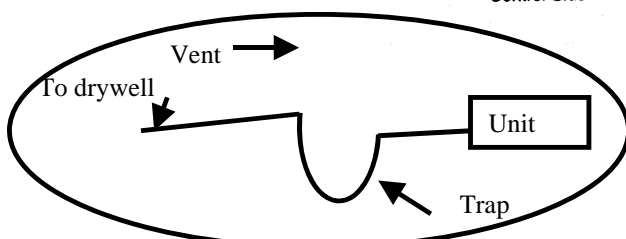
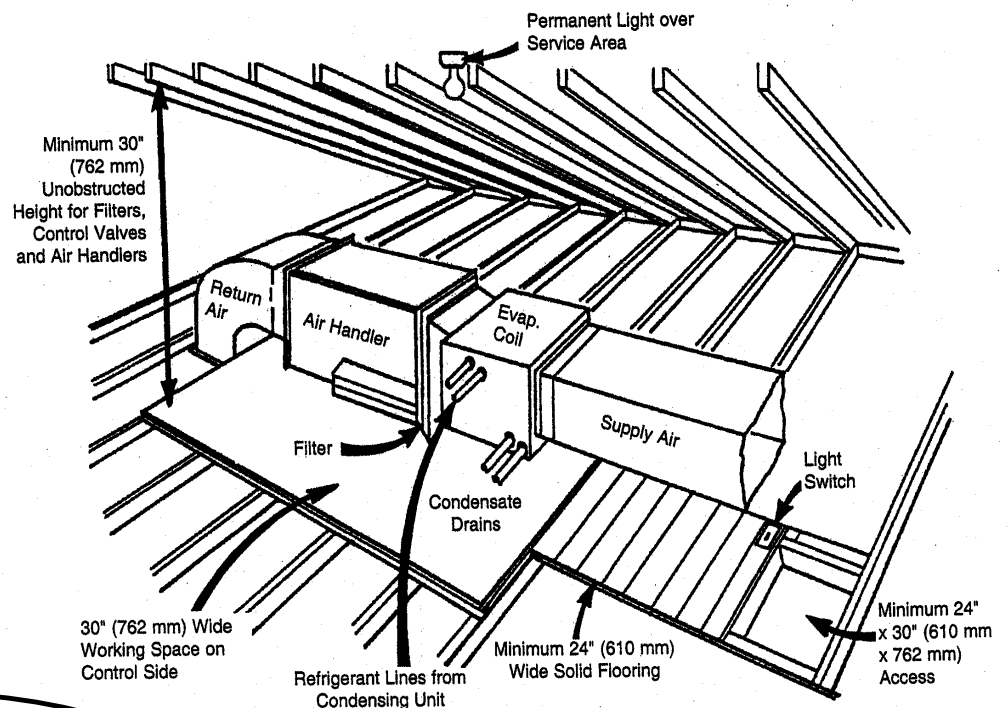
ATTIC FURNACE



Electric Requirements

- Furnace required to be on separate circuit and hard wired. NEC 422-12
- Existing or new "Romex" must be protected 6 ft from scuttle hole. 333-12

The only requirement unique to attic furnaces is the requirement that a continuous floor 24 inches in width be provided from the firebox side of the furnace to areas required to service "temperature-limit control, air filter, fuel-control valve, vent collar or air-handling unit." In many cases, this will require continuous flooring 24 inches in width on three sides of the equipment and 30 inches on the control side.



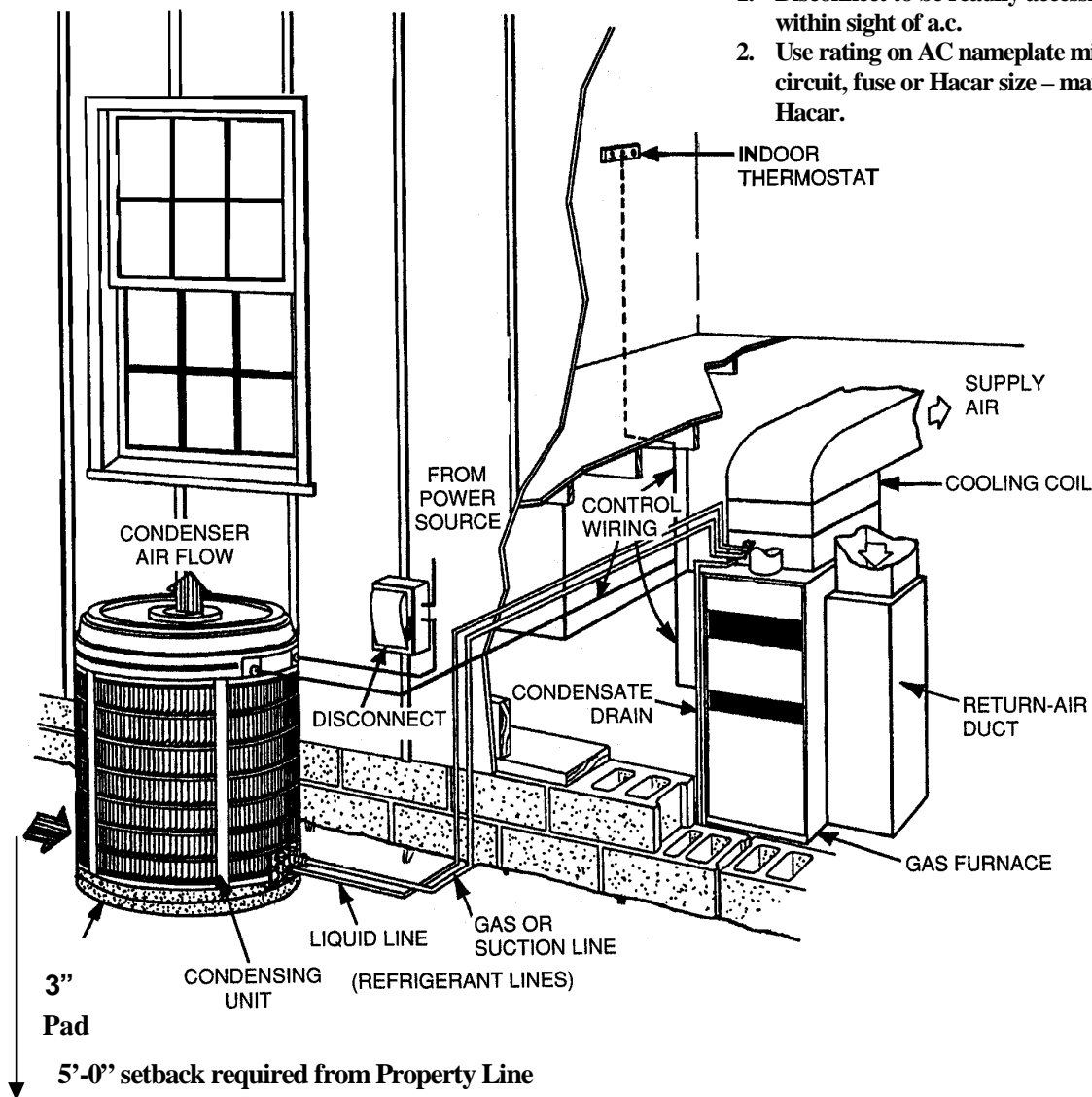
Trap required
Trap and vent if more than 15'
Overflow to terminate over door or window

OUTDOOR A/C SYSTEM

A plot plan must be submitted showing property lines, house and other buildings on lot, location of condensing unit, dimensions of unit and distances from property lines.

Electric Requirements:

1. Disconnect to be readily accessible and within sight of a.c.
2. Use rating on AC nameplate min. circuit, fuse or Hacar size – max fuse or Hacar.



TYPICAL "SPLIT SYSTEM" AIR-CONDITIONING SYSTEM: UPRIGHT GAS FURNACE WITH INTEGRAL COOLING COIL; CONDENSING UNIT ON EXTERIOR OF BUILDING

Condensate Disposal Requirements

The proceeding information pertains to condensate discharge requirements for air-conditioning units in residential, commercial and industrial buildings.

Residential Condensate Disposal Requirements –

Condensate discharge for residential air-conditioning units is typically terminated in drywells. Drywell specifications are as follows:

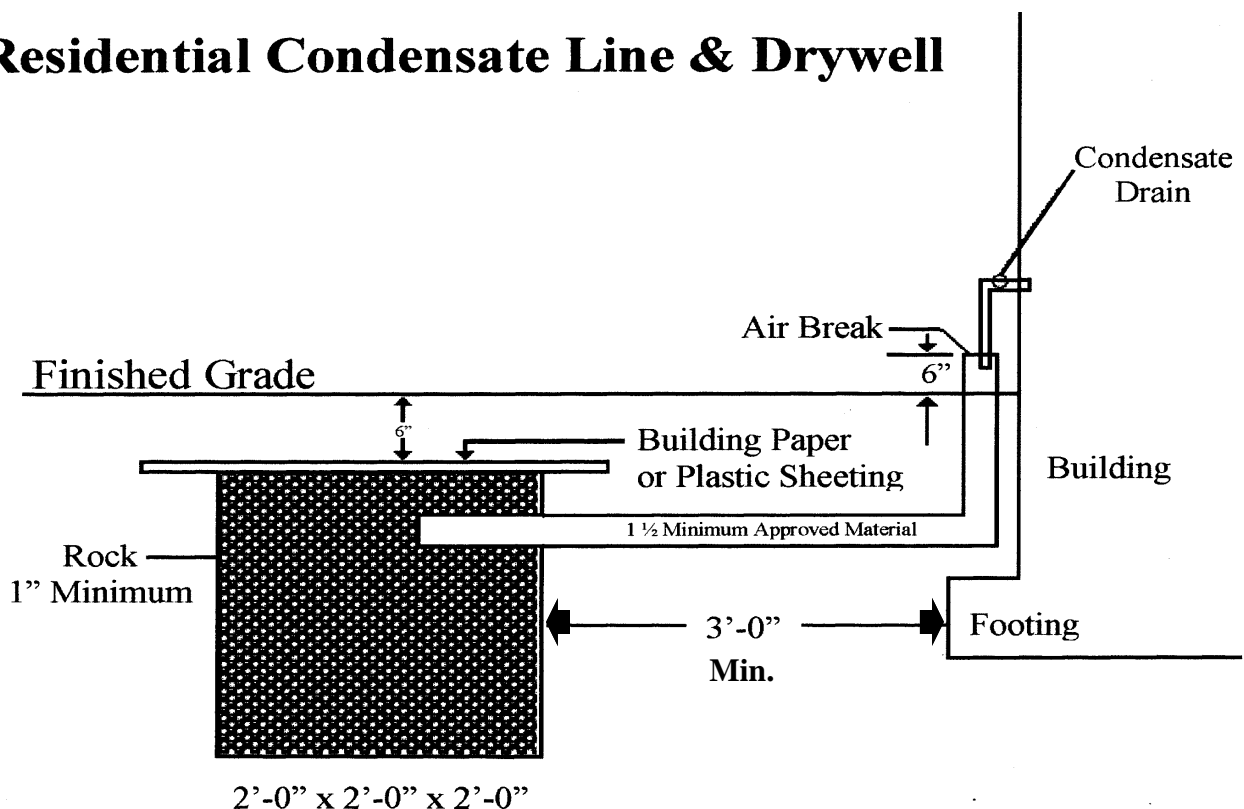
1. The minimum size of a residential drywell is 2 foot square by 2 foot deep.
2. The nearest edge of the drywell shall be at least 3 feet from any structure or building foundation.
3. The drywell shall be filled with min. 1" rock.
4. The top of the drywell shall be covered with building paper or plastic sheeting with 6" of earth or concrete over that.
5. The condensate pipe from the cooling coil (minimum 3/4") shall **indirectly connect** to a minimum 1 1/2" drainpipe.

Note: The indirect connection shall be made by an air break at the edge of the foundation.

Miscellaneous Information -

When a cooling coil is located in an **attic**, a **secondary** condensate drainpipe shall be installed and shall terminate in a readily observable location such as, over a window or door.

Residential Condensate Line & Drywell



CLOSET FURNACE VENT REQUIREMENTS

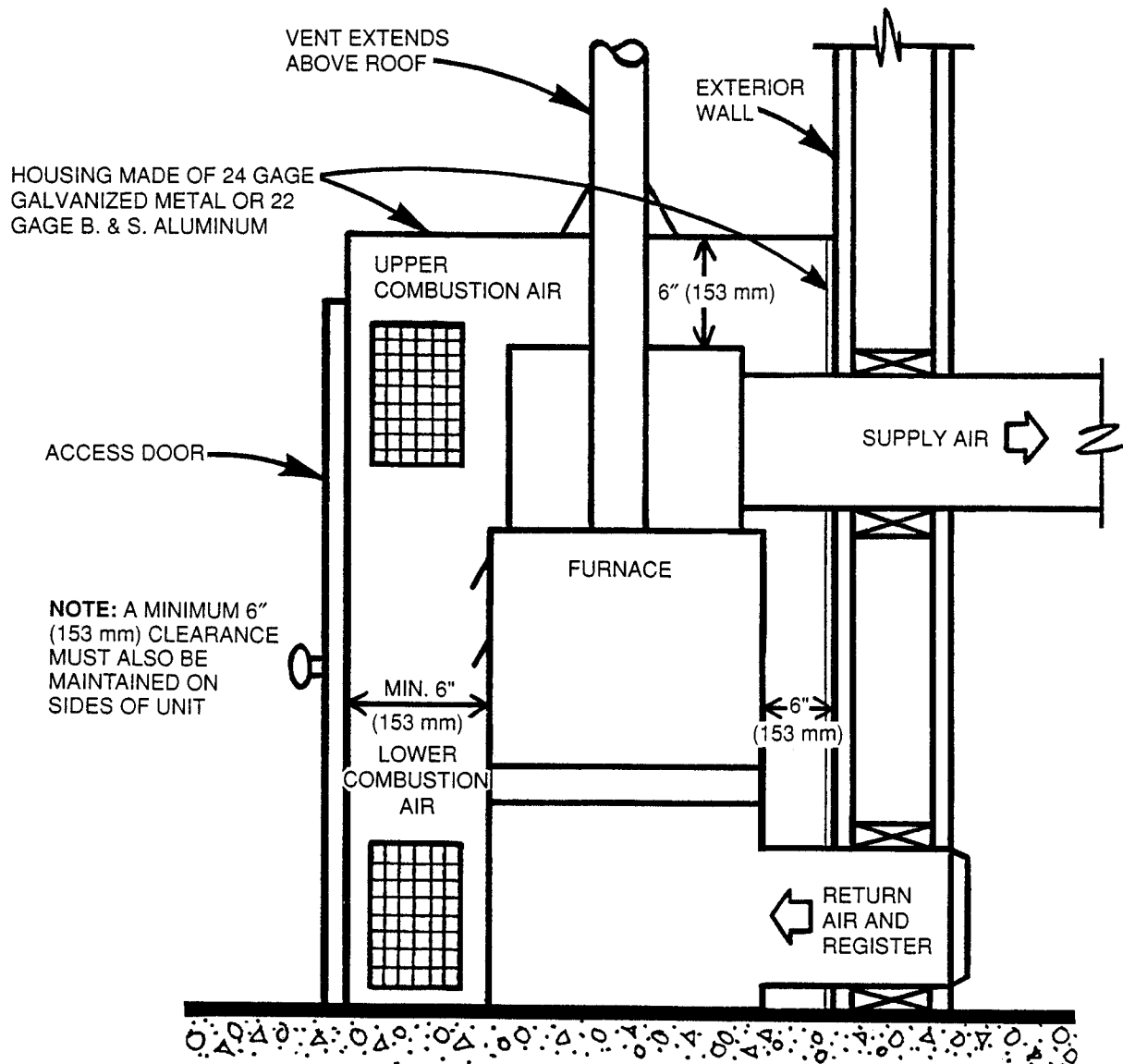
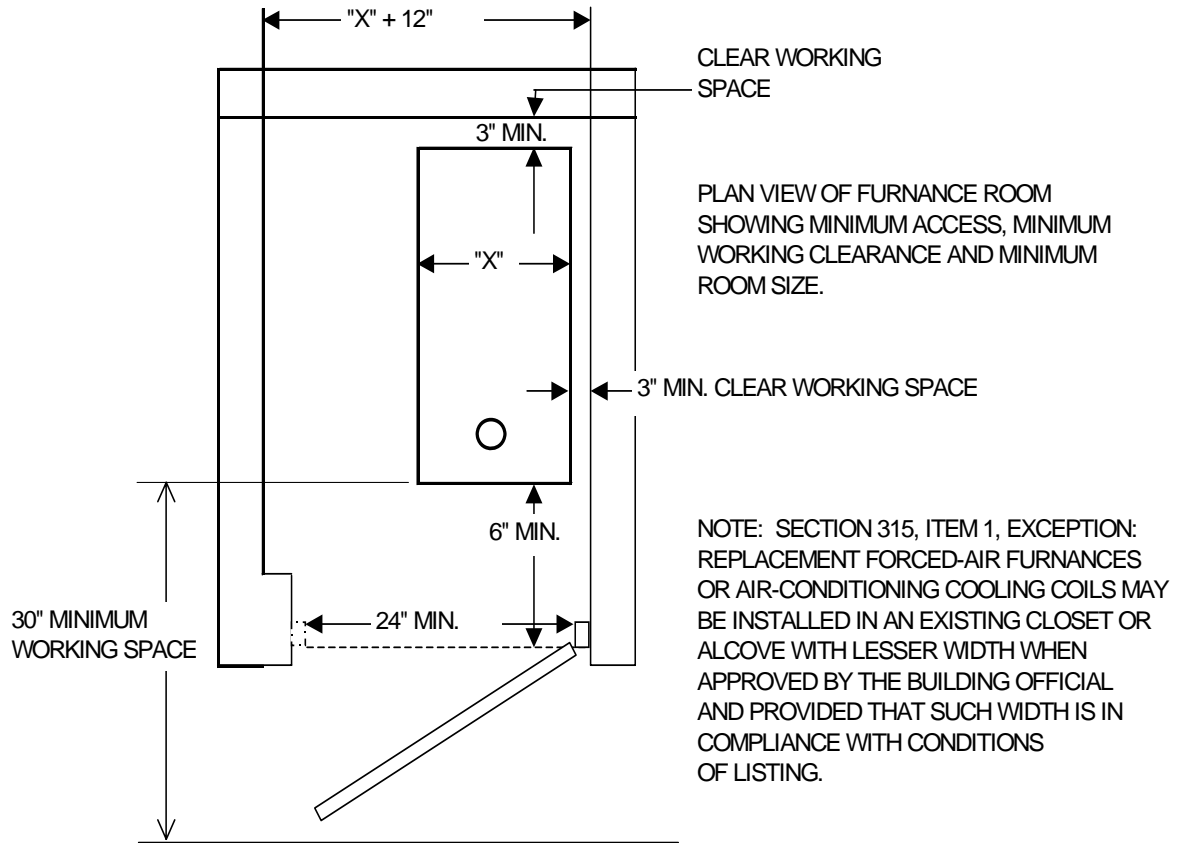


Figure 3-27

(Per the Uniform Mechanical Code)

CLOSET FURNACE CLEARANCE REQUIREMENTS



(PER THE UNIFORM MECHANICAL CODE)